DOCUMENT RESUME

ED 147 027 PS 009 681

AUTHOR Roy, Robin L.; Roy, M. Aaron
TITLE Consequences of Atypical Rearing Experiences in Humans.
PUB DATE Aug 77
NOTE 9p.; Paper presented at the Annual Meeting of the American Psychological Association (85th, San Francisco, California, August 26-30, 1977)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS Affective Behavior; Child Development; *Early Experience; *Environmental Influences; *Human Development; *Identification (Psychological); Infancy; Literature Reviews; *Social Development; *Social Isolation; Socialization; Social Relations
IDENTIFIERS Feral Children; Species Indentity

ABSTRACT

This paper discusses the development of species-identity in humans, emphasizing the influence of environment vs. heredity. The cases of two feral children, and three children raised with limited human contact are presented and research concerning institutional upbringing is discussed. These reports all imply or state that reduced contacts with humans will lead to long term disruption of social and affiliative behaviors. Different theoretical positions on human development are surveyed. It is concluded that species-identity in humans is primarily environmentally determined. Ramifications of this statement are suggested. (SB)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED147027

Title: Consequences of atypical rearing experiences in humans

Symposium: This paper was part of a symposium entitled "Early Experience and the Development of an Adequate Species-Identity" presented at the American Psychological Association meetings, San Francisco, August, 1977.

Abstract: The concept of a species-identification, or the ability to recognize what species one belongs to and thus affiliate with, has been infrequently discussed in humans. Many believe that an infant innately knows that it is a human and in this sense is a social being. Literature pertaining to feral-, wild-, or wolf-children, infants raised in institutions, and infants kept at home but in semi-isolation suggests that early rearing with reduced contacts with humans will have long lasting and negative effects on social and communicative skills. Thus, a species-identity in humans may not be innate, but may require a certain type(s) and degree of early post-natal stimulation from other people in order to develop a basic affinity for species members. This notion of having to learn our species-identity is compatible with viewpoints of some comparative psychologists, ethologists, clinicians, and cultural anthropologists. Furthermore, an emphasis on acquiring this identity early in life is consistent with some theorists who have speculated a period-dependency for "becoming human".

Authors: Robin L. Roy and M. Aaron Roy, Delta Primate Center, Neurobiology, Covington, Louisiana, 70433.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

M. Aaron Roy

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

PS 009681

ED147027

PS 009681

Title: Consequences of Atypical Rearing Experiences in Humans

Authors: Robin L. Roy and M. Aaron Roy (MAR presenting)

We don't find the term "species-identity" in the literature on human development. However, we do find vague references to concepts such as "man's nature" and "becoming human" which one can interpret as pertaining to "species-identity". More on this later, however.

Before I proceed, it may be best to define what I mean by "species-identity". In animals which have some degree of social structure, it is the affinity or preference of a target organism for a group of other organisms which have like physical and behavioral characteristics between them, but who may not be similar either behaviorally or physically to the target organism. Affinity is measured by proximity to, socially interacting with, imitation or copying of, and/or breeding with members of a species to which one identifies.

No research has been done by me or others where human infants are intentionally raised in strict or partial isolation as has been the case with lower organisms. Yet, if the development of a "species-identity" is a function of early experiences, then atypical rearing experiences should lead to deficiences or abnormalities in behaviors which are based on an adequate species-identity, namely social and affiliative behaviors. I feel that there are three areas in the literature which do offer insights into the consequences of atypical early rearing experiences. These include (1) discussions of feral-, wild-, or wolf-children (see Singh and Zingh, 1966), (2) the papers on institutional rearing which primarily appeared from the 1940's to 1960's (see Dennis, 1960; Goldfarb, 1943; Provence and Lipton, 1962; Spitz, 1945), and (3) a few cases of the rearing of children within our own culture who are kept isolated in small rooms or attics (see Davis, 1940, 1947; Mason, 1942; and Morrison & Brubakken, in press). As you well know, many of these reports are not experiments, they are frequently retrospective histories, and they are usually carried out by non-blind evaluators. However, I feel they are still relevant to today's discussion.

The feral children are supposed to be reared directly by animals or they have fended for themselves in the wild. In my opinion, most of the cases discussed by Singh and Zingh (1966) are very suspicious and do not reflect children being raised in isolation from humans early in life. However, the discussion of Amala and Kamala is better documented and appears to be a case of early rearing with reduced human contacts. The two girls were judged to be 1½ (Amala) and 8 (Kamala) years old when captured with a family of wolves. Though attached to each other, they showed no affinity toward any other humans in the orphanage and kept their distance from people. They were described as being virtual animals when captured. In fact, it took 12 months just for Kamala to develop a "liking" for Mrs. Singh, the girl's sole caretaker, and it required about 6 years for Kamala to learn to wear a dress or frock. In contrast to their interactions with

people, the girls showed a strong affinity for animals (cats, dogs, a hyena cub), even to the point of imitating them. Amala died soon after capture, but Kamala lived for 9 years in the orphanage under Mrs. Singh's supervision. At her death, at 17 years, Kamala had made great improvements (relative to her development when captured) in physical and motor coordination, the learning of cultured skills (eating with utensils, sitting and walking, dressing), and communication (40 spoken words). However, Kamala showed little hint of a generalized affinity for people which is common for adolescent humans; her social interests and behaviors were still retarded.

There are three cases of children raised outside of institutions with reduced human contacts. Mason (1942) discussed "Isabelle", a child kept in a room with her retarded mother for 6½ years after birth. The shades were drawn and no other social contacts were permitted. Within two days after their escape and discovery, Isabelle was showing signs of positive affect toward her speech specialist. Though retarded both mentally and socially at this time, Isabelle improved dramatically during her post-discovery care and eventually graduated from high school where she was described by staff and peers as normal. Davis (1947) subsequently interpreted her post-discovery improvement solely to good treatment; I would add that an equally important factor was continued contact with her mother during isolation which left Isabelle oriented and receptive to social interactions with others. The case of "Anna" has been described by Davis (1940, 1947). This child was described as being normal and healthy after birth, but was then confined to an attic room from 6 months to 6 years. Though her mother and older brother slept in the attic, they were permitted to leave and did so for most of the time. As a result, "Anna" had minimal social contacts with people. In addition, she was not well cared for nutritionally, hygenically, or physically (e.g. restrained in a chair all day). When discovered, she was retarded mentaly, socially, and physically. After 12 months, she was described as "becoming more human". Eventually, "Anna" was placed in a state hospital for the mentally retarded. Before her death at 11 years, she had improved in all areas, though nowhere near as much as Isabelle. I attribute Anna's poorer post-discovery improvements to both reduced social contacts early in life and to poor treatment. In contrast, Davis (1947) attributes the limited improvement solely to poor post-discovery care.

A recent and well documented case has been reported by two researchers from the University of Wisconsin Medical School (Morrison and Brubakken, in press). There is no early history on this young male, called "M", though the reduced contacts with humans from 3 to 7 years suggests such deprivation prior to 3 years as well. When brought in for treatment, "M" exhibited "severe" deficits in social, motor, and cognitive functioning. Unlike "Anna" and "Isabelle", both "M" and his caretakers received four years of intensive treatment which included inpatient and outpatient contacts in the home and the school. By age 11, "M" had improved markedly in motor and cognitive functioning, e.g., controlled hyperactivity, interested in learning tasks, comprehends stories, and speaking without

echolalia. "However, the range and appropriateness of his affective responses vastly differ from the norm." "Attachment behaviors remain clearly illusory...he continues to remain affectively unattached." "He evidences a minimal capacity for self-object differentiation and play activity with other children." What can be concluded is that "adequate social experience in early development is of primary importance in self and other differentiation and object relatedness."

The many reports on institutional rearing are most familiar to us and thus require less attention today. Admittedly, there are great differences in infants (ranging from hypo- to hyper-active) and not all infants who are reared in institutions show the same type or degree of deficits, some do not seem to suffer much at all. However, we all agree that an important characteristic of institution rearing centers around a reduction of social experiences with both peers and adults. This especially involves less tactile-kinesthetic stimulation. Whether the reduction of contacts is interpreted as maternal, stimulus, or perceptual deprivation is not pertinent here. What is relevant are the repeated conclusions that such early rearing experiences usually have the most effect on subsequent social behaviors and affiliative tendencies. Dennis (1960) states that socially hypoactive infants show improvement in non-social areas following placement in foster homes, but they show long lasting retardation/deficiencies in social and communicative skills. Provence and Lipton (1962) report that while in the institution, their infants were not likely to initiate social contacts, they did not seek adults in time of need, and they were not attached to one person. When placed in foster homes, the long term residual impairments of early institutionalization were found in varying degrees of difficulty to form emotional relationships with others.

In summary the reports on atypical rearing in early life all imply or state that reduced contacts with humans will lead to long term disruption of social and affiliative behaviors. I will now switch to more theoretical positions on the development of humans.

As previously stated, I find no references to a "species-identification" in humans. However, many statements from various areas, both within and out of psychology, are highly suggestive and offer insights as to how others have viewed human social development. Tafel, as early as 1848, said that "man is human, only under other men, and without this education, man remains an animal." Murray (1938) states that affiliation for other humans is a psychogenic rather than a biogenic need, and thus is a function of cultural influences and in particular interactions with parents. Gesell (1952) feels that "psychically, the child inherits nothing fully formed. Each and every part of his nature has to grow..."

When discussing human attachments, Bowlby (1959) felt that "it would be possible for the whole of a child's attachment behavior to be directed toward an inanimate object....Such a condition...could almost certainly be inimical to future mental health." Montague (1950) makes a number of relevant references to becoming human. He states that

"it should be said that no organism of the species named Homo sapiens is born with human nature. Being human is not a status with which to which one is born. Being human must be learned." Furthermore, "the development into a human being requires more than just being kept alive physically." Bronfenbrenner (1968) hypothesizes that early deprivation will lead to a "severely impaired capacity...for engaging in reciprocal patterns of social, heterosexual, and even maternal behaviors." Count (1973), the well-known anthropologist and author of Being and Becoming Human, believes that "certain appropriate stimuli are essential at particular times if innately determined psychic mechanisms are to unfold properly."

Others have even suggested specific time periods for such environmental actions upon humanization. Wong (1961) feels the process of "becoming human" occurs by interacting with humans during the child's first year of life. In addition, Furguson (1970) states that infants "join the human race" during their first year. Finally, a sensitive period for affiliation and socialization in humans has been proposed by Ambrose (1963), Gray (1958), Hess (1959), Rollman-Branch (1960) and Spitz (1965).

Theoretically, it appears that a number of writers have concluded that to be considered a "normal" Homo sapien requires far more than just genetic input. Though said in various ways, one must conclude that many believe environmental influences shape the type and degree of species-typical social behaviors in man.

An issue I believe is related to "species-identity" is the attachment phenomenon so well discussed by Bowlby (1959), Ainsworth (1969) and others. Unfortunately time limits my discussion of attachment. Yet, there is a strong attachment tendency in human infants which is augmented by a range of behaviors which serve to initiate contact with caretakers as well as to maintain proximity to them once an interaction has started. Is the attachment tendency a biological mechanism to only provide nutrition and protection for the infant, or is it also a tendency which normally, serves to aid in the development of an adequate "species-identity?"

In conclusion:

(1) I will go out on an ice-covered limb and state that "species-identity" in humans is primarily environmentally determined.

This statement has more than theoretical importance. For, if it is true, then:

(2) particular child-rearing practices in various cultures and sub-cultures may not favor the development of an adequate "species-identity"

(3) there may be a relationship between introversion-extroversion tendencies and the strength of a species identification.

(4) unavoidable medicinal child-care practices (e.g. for rare diseases or severe burn victims) which necessitate fewer than normal interactions with peers/adults may hamper the development of an adequate "species-identity" if such treatment is lengthy and if it occurs early in life.

References

Ainsworth, M.D.S. Object relations, dependency, and attachment: A theoretical review of the infant-mother relationship. Child Development, 1969, 40, 969-1025.

Ambrose, J. A. The concept of a critical period for the development of social responsiveness in early human infancy. In: B. M. Foss (Ed.), Determinants of Infant Behavior II. New York: Wiley, 1963.

Bowlby, J. Attachment and Loss. Vol. 1. Attachment. New York: Basic Books, 1969.

Bronfenbrenner, U. Early deprivation in mammals: A cross-species analysis. In. G. Newton & S. Levine. Early experience and behavior. Springfield, Illinois: Charles C. Thomas, 1968.

Count, E. W. Being and becoming human: Essays on the biogram. New York: Van Nostrand Reinhold Company, 1973.

Davis, K. Extreme social isolation of a child. American Journal of Sociology, 1940, 45, 554-565.

Davis, K. Final note on a case of extreme isolation. American Journal of Sociology, 1947, 52, 432-437.

Dennis, W. Causes of retardation among institutional children: Iran. Journal of Genetic Psychology, 1960, 96, 47-59.

Ferguson, L. R. Personality Development. Belmont, California: Brooks/Cole Publishing Company, 1970.

Gesell, A. Infant development. New York: Harper and Row, 1952.

Goldfarb, W. The effects of early institutional care on adolescent personality. Journal of Experimental Education, 1943, 12, 106-129.

Gray, P. H. Theory and evidence of imprinting in human infants. Journal of Psychology, 1958, 46, 155-166.

Hess, E. H. Imprinting. Science, 1959, 130, 133-141.

Mason, M. K. Learning to speak after six and one-half years of silence. Journal of Speech and Hearing Disorders, 1942, 7, 295-304.

Montagu, M.F.A. On Being Human. New York: Abelard-Schuman, 1950.

Morrison, H. L. and Brubakken, D. M. Social isolation and deprivation: An environment of rehabilitation, in press.

Murray, H. A. Explorations in personality. New York: Oxford University Press, 1938.

Provence, S. and Lipton, R. C. Infants in institutions. New York: International Universities Press, 1962.

Rollman-Branch, H. S. On the question of primary need. Journal of the American Psychoanalysis Association, 1960, 8, 686-702.

Singh, J. A. L. and Zingg, R. M. Wolf children and feral man. Hamden, Connecticut: Archon Books, 1966.

Spitz, R. A. Hospitalism: An inquiry into the genesis of psychiatric conditions in early childhood. Psychoanalytic Study of the Child, 1945, 1, 53-74.

Spitz, R. A. The first year of life. New York: International Universities Press, 1965.